IN THE SPECIFICATION

Please amend the specification as follows:

On page 1, before line 4, please insert the following heading:

Background of the Invention

Please amend the paragraph beginning on page 1, line 4, as follows:

The present invention pertains to RF bandpass filters with pseudo-elliptic response, more particularly to those embodied in E-plane guide technology with a printed dielectric insert. It applies more particularly to wireless telecommunication systems operating in the ~~millimetre~~ millimeter region and having to meet high spectral purity demands.

On page 1, before line 10, please insert the following heading:

Description of the Prior Art

Please amend the paragraph beginning on page 1, line 26, as follows:

In ~~this~~ figure 1, an RF waveguide 101 of rectangular cross section is divided into two identical parts by a plane dielectric substrate 102 situated in the E-plane of propagation of this guide. This substrate has low losses and minimum thickness (less than 0.2 mm for example) so as not to degrade the quality factor of the ~~guide~~ waveguide. However, in this figure, as well as in the others, the thickness of the substrate has been represented greatly enlarged to facilitate readability.

Please amend the paragraph beginning on page 2, line 3, as follows:

On at least one ~~at least~~ of its faces the substrate 102 comprises printed conductors 103 linked electrically to the internal faces of the guide which support the substrate ~~103~~ 102 and whose topology determines the desired response of the filter. To simplify the language, these

conductors 103, linked electrically to the ~~guide~~ waveguide, will be referred to as conducting inserts.

Please amend the paragraph beginning on page 2, line 15, as follows:

A dielectric substrate 102 is enclosed between a bedplate 101 and a cover 111. This bedplate and this cover are hollowed out with channels 104 which determine two modes of transmission: a guided mode and a line transmission mode. Conductors 103 printed on the upper surface of the substrate 102, and conductor 113 on the lower surface, make it possible to modify the response curve of these waveguides. The technologies illustrated in this figure correspond in respect of the upper face of the substrate to the microstrip technology, and in respect of the lower face to the FINLINE technology.

Please amend the paragraph beginning on page 2, line 24, as follows:

The bandpass filter topology most commonly used in the technologies represented in figures 1 and 2 consists in using n+1 grounded inductive inserts ~~earthed by being~~ linked electrically to the internal faces of the guide, when n is the order of the filter. These inserts are spaced apart by approximately half a guided wavelength, and are in principle printed on just one face of the substrate. However, to minimize the sensitivity of the response of the filter to manufacturing tolerances, the inserts are often preferably printed in a substantially identical manner on both faces of the substrate, but they are still connected to the internal walls of the guide.

On page 3, before line 20, please insert the following heading:

Summary of the Invention

Please amend the paragraph beginning on page 3, line 20, as follows:

To solve this problem, the invention proposes a RF bandpass filter with pseudo-elliptic response, of the type comprising a waveguide furnished with an insulating substrate

placed in an E-plane of the ~~guide~~ waveguide and comprising on one of its faces inductive conducting inserts connected electrically to the internal faces of the guide which support the substrate and which through their dimensions and their locations on the substrate determine a Chebyshev type filter response curve. The filter furthermore comprises at least one electrically floating insert placed on the other face of the substrate and which through its dimensions and its location on the substrate determines a transmission zero in the response curve of the filter making it possible to attenuate the frequencies situated in the vicinity of this zero and determining the pseudo-elliptic nature of the response curve of the filter.

On page 4, before line 16, please insert the following heading:

Brief Description of the Drawings

Please amend the paragraph beginning on page 4, line 16, as follows:

Other features and advantages of the invention will become clearly apparent in the following description, presented by way of non limiting example in conjunction with the appended figures which represent:

- figure 1, a ~~see-through and perspective~~ view of a prior art bandpass filter of the Chebyshev type in E-plane guide technology with dielectric insert;
- figure 2, a cross-sectional view of a prior art structure combining the microstrip, FINLINE, and E-plane guide technologies;
- figure 3, a view under the conditions of figure 1 of a bandpass filter according to the invention; and
- figure 4, a comparative graph of the response curves of a filter of the purely Chebyshev type and of a filter according to the invention.

On page 4, before line 28, please insert the following heading:

Description of the Preferred Embodiments

Please amend the paragraph beginning on page 4, line 28, as follows:

Referring to figure 3, the filter according to the invention, as illustrated in this figure, is of comparable structure to that of figure 1 and comprises a waveguide 301 furnished with a thin dielectric substrate 302 placed longitudinally in the E-plane of this ~~guide~~ waveguide. The upper face of this substrate comprises four inductive inserts 303 ~~to~~, 304, 305, 306 formed of wider or narrower rectangular metallizations whose ends situated on the longitudinal edges of the substrate are in electrical contact with the internal lateral faces 301A and 301B of the guide which support the substrate. Preferably, these inductive inserts are connected electrically to two opposite sides of the waveguide so as to ensure the best possible electrical contact. These inserts make it possible to obtain the Chebyshev type bandpass filtering function.

Please amend the paragraph beginning on page 5, line 11, as follows:

According to the invention, the lower face of the substrate comprises two inserts 314 and 315 here formed of narrow rectangular metallizations and which reduce to two conducting bands. These metallizations are electrically "floating", that is to say they are not linked to the two lateral faces 301A and 301B of the guide which carries the substrate. They are placed facing the inserts 304 and 305 situated on the other face of the substrate and are more and less inclined ~~to a greater or lesser extent~~ with respect to the longitudinal axis of the ~~guide~~ waveguide.

Please amend the paragraph beginning on page 5, line 19, as follows:

To facilitate the understanding of the figure, the lower face of the substrate has been marked with ~~the projection thereonto of the conducting inserts in the form of four~~ small

dashes 307 forming the four corners of ~~these projections in which the two~~ structures in which a "floating" ~~inserts~~ insert 314 ~~and~~ or 315 ~~will be placed~~ can take place. This combined structure makes it possible to generate transmission zeros in the response curve of the filter without entailing any increase in the overall size thereof. The frequencies at which these zeros are situated are determined by the dimensions and the orientations of these "floating" inserts in the determined structure. These dimensions and these orientations are also determined by a method of synthesis known per se. The complete set of dimensioning parameters, both those of the inductive conducting inserts and those of the "floating" inserts, allow global tailoring of the response curve of the filter as a function of the desired response.

Please amend the paragraph beginning on page 6, line 1, as follows:

In the example described, the addition of two inserts 314 and 315 make it possible to introduce two zeros into the response curve, but it would have been possible to add just one or to ~~introduce~~ add four of them by placing two other floating inserts 313 and 316 opposite the corresponding conducting inserts 303 and 306.

Please amend the paragraph beginning on page 6, line 5, as follows:

In a general manner, it is possible to generate up to n+1 transmission zeros in a filter of order n since the ~~latter~~ filter comprises n+1 conducting inserts. The designer of the filter will therefore be able to distribute these zeros on either side of the passband of the filter so as to best comply with the template imposed. It will be appreciated that the closer the zeros are placed to the passband, the more the ~~latter's~~ filter's template will be disrupted. In most cases it will therefore be necessary to re-engineer the conducting inserts so as to regain satisfactory

performance in terms of matching and bandwidth. This will be done by well known methods of iteration that will be all the easier to implement as the numerous zeros that may thus be introduced with great flexibility make it possible to alter a much greater number of parameters than in the case of the filter of the entirely Chebyshev type. It will even be possible to profit from this flexibility so as to decrease the order of the filter and hence its bulkiness and its cost while retaining very considerable selectivity.